

Atty. Docket No. YOR20010072US1
(590.044)

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)

2. (Currently Amended) The method according to Claim 4 8, wherein said step of building a model for each of a preselected number N of the ranked features comprises building a model for the top N ranked features.

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The method according to Claim [[4]] 8, wherein said step of computing a score for each feature comprises computing a score as a log-likelihood ratio.

6. (Currently Amended) The method according to Claim [[4]] 8, wherein said step of compiling a confusion matrix further comprises comparing each score of each feature with a threshold.

7. (Cancelled)

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8. (Currently Amended) ~~The method according to Claim 7,~~ A method of facilitating speech recognition, said method comprising the steps of:

obtaining speech input data;

building a model for each feature of an original set of linguistic features, wherein the model reflects:

ranking the linguistic features, and

rebuilding the model for each of a preselected number N of the ranked linguistic features; and

compiling a confusion matrix for each feature of the original set of features subsequent to said step of building a model for each feature of an original set of features, wherein said compiling a confusion matrix comprises:

computing a score for each feature based on the likelihood of its presence in a frame of the speech input data, and

calculating mutual information between truth and labels for each feature;

wherein the ranking step comprises ranking the mutual information calculated in compiling the confusion matrix.

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9. **(Currently Amended)** The method according to Claim ~~[[1]]~~ 8, wherein said step of building a model for each feature of an original set of features comprises:

partitioning the speech input data in parallel, once for each feature; and

producing an observation vector.

10. **(Original)** The method according to Claim 9, wherein said step of building a model for each feature of an original set of features comprises:

partitioning data in parallel from the observation vector, once for each feature; and

producing final observations.

11. **(Currently Amended)** The method according to Claim ~~[[1]]~~ 8, wherein said step of building a model for each of a preselected number N of the ranked features comprises:

partitioning the speech input data in parallel, once for each feature; and

producing an observation vector.

12. **(Original)** The method according to Claim 11, wherein said step of building a model for each of a preselected number N of the ranked features comprises:

partitioning data in parallel from the observation vector, once for each feature; and

producing final observations.

13. **(Cancelled)**

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14. (Currently Amended) The apparatus according to Claim ~~13~~ 20, wherein said second model builder is adapted to build a model for the top N ranked features.

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) The apparatus according to Claim ~~16~~ 20, wherein said matrix compiler is adapted to compute a score as a log-likelihood ratio.

18. (Currently Amended) The apparatus according to Claim ~~16~~ 20, wherein said matrix compiler is adapted to compare each score of each feature with a threshold.

19. (Cancelled)

20. (Currently Amended) The apparatus according to Claim ~~19~~, An apparatus for facilitating speech recognition, said method comprising the steps of:

an input medium which obtains speech input data;

a first model builder which builds a model for each feature of an original set of linguistic features, wherein the model reflects whether or not each feature is present;

a ranking arrangement which ranks the linguistic features;

a second model builder which rebuilds the model for each of a preselected number N of the ranked linguistic features; and

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a matrix compiler which compiles a confusion matrix for each feature of the original set of features subsequent to said step of building a model for each feature of an original set of features, wherein said matrix compiler is adapted to:

compute a score for each feature based on the likelihood of its presence in a frame of the speech input data, and

calculate mutual information between truth and labels for each feature;

wherein said ranking arrangement is adapted to rank the mutual information calculated in compiling the confusion matrix.

21. (Currently Amended) The apparatus according to Claim 13 ~~20~~, wherein said first model builder is adapted to:

partition the speech input data in parallel, once for each feature; and
produce an observation vector.

22. (Original) The apparatus according to Claim 21, wherein said first model builder is adapted to:

partition data in parallel from the observation vector, once for each feature; and
produce final observations.

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23. (Currently Amended) The apparatus according to Claim ~~13~~ 20, wherein said second model builder is adapted to:

partition the speech input data in parallel, once for each feature; and

produce an observation vector.

24. (Original) The apparatus according to Claim 23, wherein said second model builder is adapted to:

partition data in parallel from the observation vector, once for each feature; and

produce final observations.

25. (Currently Amended) A program storage device readable by machine computer, tangibly embodying a program of instructions executable by the machine computer to perform method steps for speech recognition, said method comprising the steps of:

obtaining speech input data;

building a model for each feature of an original set of linguistic features, wherein the model reflects; ~~whether or not each feature is present;~~

ranking the linguistic features[[:]], and

rebuilding the model for each of a preselected number N of the ranked linguistic features; and

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compiling a confusion matrix for each feature of the original set of features
subsequent to said step of building a model for each feature of an original set of features,
wherein said compiling a confusion matrix comprises:

computing a score for each feature based on the likelihood of its presence
in a frame of the speech input data, and

calculating mutual information between truth and labels for each feature;

wherein the ranking comprises ranking the mutual information calculated in
compiling the confusion matrix.